

LDEQ REQUIREMENTS FOR “ENHANCED” C & D LANDFILLS

Revised May 25, 2006

The site must give prior notice to the LDEQ in advance of initiation of implementation of enhanced C&D activities. Each owner or operator of an enhanced construction and demolition debris (C&D) landfill that receives asbestos-containing waste material (ACWM) shall meet the following requirements:

1. Adequate Perimeter Air Monitoring shall be conducted for the presence of asbestos fibers to evaluate and ensure the effectiveness of engineering and operational controls designed to prevent off-site migration of asbestos fibers. Receptors will primarily be workers at the site and drivers delivering waste material, therefore OSHA protection standards should be considered. See **Appendix A** for an example of a perimeter monitoring plan.

a. Sample Methods

- i. Perimeter monitoring shall be conducted in accordance with NIOSH method 7400. Calibrate an SKC or equivalent sampling pump and collect approximately 1 liter per minute (L/min) of air into the filter. This method uses PCM, which is not specific for asbestos.
- ii. NIOSH method 7402 uses TEM to confirm presence or absence of asbestos fibers.
- iii. All perimeter air monitoring samples must be conducted by LDEQ accredited Contractor/Supervisors,
- iv. All samples must be analyzed at a Louisiana Environmental Laboratory Accreditation Program (LELAP) accredited laboratory to perform the sample method.
- v. Sample turn-around time should be no greater than 48 hours.
- vi. All samples and sample results are subject to these requirements

b. Detection Limits and OSHA limits

- i. The sample method detection limit shall be 0.01 – 0.02 f/cc
- ii. The OSHA permissible exposure limit (PEL) for asbestos fibers is 0.1 f/cc.
- iii. The OSHA excursion or short-term limit is one fiber per cubic centimeter of air (1 f/cc)

c. Record Keeping

- i. Chain of Custody documentation shall be kept to document and verify samples.
- ii. Calibration checks shall also be recorded
- iii. All records required by this section shall be maintained for 2 years
- iv. All records required by this section shall be maintained on-site and be made available for inspection purposes or at the request of the Department.

d. Notification and Response Actions

- i. The operator of an enhanced C&D landfill shall notify LDEQ's Single point of Contact (SPOC) at 225-219-3640 immediately (within 1 hour) upon receipt of sample results indicating the presence of asbestos fibers above the OSHA PEL of 0.1 f/cc.
- ii. Operations at the enhanced C&D landfill shall immediately cease upon receipt of sample results indicating the presence of asbestos fibers above the OSHA PEL of 0.01 f/cc. The operator of the enhanced C&D landfill shall investigate site operations to determine the source of the asbestos fibers.
- iii. Results of the investigation shall be reported in writing to SPOC within 24 hours of completion of the investigation.
- iv. The operator of the enhanced C&D landfill will determine and implement appropriate corrective action. If necessary, these corrective actions must be approved by the Department prior to implementation.
- v. Once the corrective action has been approved by the Department, the enhanced C&D landfill may begin site operations. However frequency of sampling shall return to daily. Procedures in Section 1.b above must be followed to return to a weekly sampling frequency.

e. Reporting

- i. Results of all monitoring and sampling results must be reported to the Department
- ii. During the first quarter (3 month period) of operation, monitoring and sampling results must be reported monthly
- iii. After the first quarter of operation, monitoring and sampling results must be reported semi-annually (every six months)

- iv. Use the DEQ approved air monitoring report form or other form approved by LDEQ. The forms shall be submitted to the Office of Environmental Services, Air Permits Division, ATTN: Jodi Miller.
2. ACWM shall be placed in a dedicated area separate from C&D waste areas
3. No Visible Emissions allowed and Daily Cover must be applied.
 - a. There must be no visible emissions to the outside air from any active waste disposal site where ACWM has been deposited;
 - b. At least once every 24-hour period while the site is in continuous operation, the ACWM that has been deposited at the site during the operating day or previous 24-hour period shall:
 - i. Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, *or*
 - ii. Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Department. Used, spent, or other waste oil is not considered a dust suppression agent; *or*
 - iii. Use an alternative emissions control method that has received prior written approval by the EPA Administrator by demonstrating that the following criteria are met:
 - 1) The alternative method will control asbestos emissions equivalent to currently required methods.
 - 2) The suitability of the alternative method for the intended application.
 - 3) The alternative method will not violate other regulations.
 - 4) The alternative method will not result in increased water pollution, land pollution, or occupational hazards.
4. Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of paragraph (3)(b) of this section must be met.

- a. Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where ACWM is deposited. The warning signs must:
 - i. Be posted in such a manner and location that a person can easily read the legend; and
 - ii. Conform to the requirements of 51 cm × 36 cm (20 inch × 14 inch) upright format signs; and
 - iii. Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified below

Legend

Notation

*Disposal Site May Contain
Asbestos Containing Waste Material*

2.5 cm (1 inch) Sans Serif, Gothic or Block

Do Not Create Dust

1.9 cm (3/4 inch) Sans Serif, Gothic or Block

Breathing Asbestos is Hazardous to Your Health *14 Point Gothic.*

- b. The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public.
 - c. Upon request and supply of appropriate information, the Department will determine whether a fence or a natural barrier adequately deters access by the general public.
5. For all ACWM received, the owner or operator of the active waste disposal site shall:
- a. Maintain waste shipment records, using the LDEQ ADVF form.
 - b. As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator and the Office of Environmental Services, Air Permits Division.
 - c. Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to LDEQ, Office of Environmental Services, Air Permits Division and the appropriate LDEQ Regional office. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.
 - d. Retain a copy of all records and reports required by this paragraph for at least 2 years.

6. Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of ACWM within the disposal site on a map or diagram of the disposal area.
7. Upon closure, comply with all the provisions of LAC 33:III.5151.N.
8. Submit to the Department, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.
9. Furnish upon request, and make available during normal business hours for inspection by the Department, all records required under this section.
10. Notify the Department in writing at least 45 days prior to excavating or otherwise disturbing any ACWM that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Department at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:
 - a. Scheduled starting and completion dates.
 - b. Reason for disturbing the waste.
 - c. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated ACWM. If deemed necessary, the Department may require changes in the emission control procedures to be used.
 - d. Location of any temporary storage site and the final disposal site.

APPENDIX A

SAMPLE PERIMETER MONITORING PLAN

A. Perimeter Sampling

1. Sampling location determined daily
2. Consider wind direction and speed using weather forecasts and on-site wind indicator
3. Sample 2 downwind and 2 upwind locations
4. The set-back from public access areas should be 100 feet

B. Frequency of Sampling during Disposal of ACWM

1. First Week – sample daily
2. 2nd Week – daily if all available results of first week samples are below acceptable levels
3. If results of 2nd week samples confirm results of first week, sampling goes to 1/week.

C. Detection Limit and Action Levels

1. The sample method detection limit shall be 0.01 – 0.02 f/cc
2. The OSHA permissible exposure limit (PEL) for asbestos fibers is 0.1 f/cc.
3. The OSHA excursion or short-term limit is one fiber per cubic centimeter of air (1 f/cc)
4. If phase contrast microscopy (PCM), results exceed ½ of the OSHA PEL (or 0.05 f/cc), transmission electron microscopy (TEM) analyses must be performed.

D. Sample Methods

1. Perimeter monitoring shall be conducted in accordance with NIOSH method 7400. Calibrate an SKC or equivalent sampling pump and collect approximately 1 liter per minute (L/min) of air into the filter. This method uses PCM, which is not specific for asbestos.

2. NIOSH method 7402 uses TEM to confirm presence or absence of asbestos fibers.
3. All samples must be analyzed at a Louisiana Environmental Laboratory Accreditation Program (LELAP) accredited laboratory to perform the sample method.
4. Sample turn-around time should be no greater than 48 hours.
5. Samples may be taken more frequently than required, but all samples and sample results are subject to these requirements

E. Record Keeping

1. Meteorological data (wind speed and direction) shall be recorded daily whenever disposal activities occur.
2. Chain of Custody documentation shall be kept to document and verify samples.
3. Calibration checks shall also be recorded
4. All records required by this section shall be maintained for 2 years
5. All records required by this section shall be maintained on-site and be made available for inspection purposes or at the request of the Department.

F. Notification and Response Actions

1. The operator of an enhanced C&D landfill shall notify LDEQ's Single point of Contact (SPOC) at 225-219-3640 immediately (within 1 hour) upon receipt of sample results indicating the presence of asbestos fibers above the OSHA PEL of 0.1 f/cc.
2. Operations at the enhanced C&D landfill shall immediately cease upon receipt of sample results indicating the presence of asbestos fibers above the OSHA PEL of 0.1 f/cc. The operator of the enhanced C&D landfill shall investigate site operations to determine the source of the asbestos fibers.
3. Results of the investigation shall be reported in writing to SPOC within 24 hours of completion of the investigation.
4. The operator of the enhanced C&D landfill will determine and implement appropriate corrective action. If necessary, these corrective actions must be approved by the Department prior to implementation.

5. Once the corrective action has been approved by the Department, the enhanced C&D landfill may begin site operations. However frequency of sampling shall return to daily. Procedures in Section 1.b above must be followed to return to a weekly sampling frequency.

G. Reporting

1. Results of all monitoring and sampling results must be reported to the Department
2. During the first quarter (3 month period) of operation, monitoring and sampling results must be reported monthly
3. After the first quarter of operation, monitoring and sampling results must be reported semi-annually (every six months)
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